REMARKS

Claims 1-38 remain pending in the application for reconsideration.

The applicants wish to thank the Examiner for indicating allowable subject matter in claims 5-8, 11-12, 14, 16-19, 20-22, 27-30, and 35-38.

Claims 2 and 9 are rejected under 35 U.S.C. § 112, first paragraph, as being indefinite. Applicants respectfully traverse this rejection for the following reasons.

The office action objects to the phrase 'tightly coupling' as being vague. Those skilled in the art would understand that 'tightly coupling' refers to a strong association, such as dedicating a client connection to a particular processor and / or NIC. For example, paragraph 0024 of the present specification describes 'Tightly-coupled Connection Processing,' where particular client connections are assigned to CPU1. For example, paragraph 0028 of the present specification describes how Fig. 2 illustrates an example of tightly-coupled connection processing, with particular NICs dedicated to specific client connections. This is in contrast to loosely coupled connection processing, where client connections may be processed by different processors during connection lifetimes (e.g. see paragraph 0010 of the present specification). Applicants submit that the objected to phrase is sufficiently clear and definite and that claims 2 and 9 are in compliance with § 112, second paragraph.

Claims 1-4, 9-10, 13, 15, 23-26, and 31-34 are rejected under 35 U.S.C. § 102(e), as being anticipated by U.S. Patent Publication No. 2001/0027496 (Boucher). Applicants respectfully traverse this rejection for the following reasons.

If any rejection of any claim is maintained or if any new ground of rejection of any is applied, applicants respectfully request a new non-final office action, for the following reasons.

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First, applicants again object to the approach taken by the Examiner. The rejection of each claim essentially amounts to a mere copying of the claim language followed by citation to a paragraph of the reference with little or no analysis or reasoning of how the cited portion allegedly reads on the claim language. It is practically impossible for the applicants to discern the Examiner's position from such an approach. In one cases the cited portion covers six (6) entire columns of text in the reference. The Examiner is kindly reminded of the requirements of 37 C.F.R § 1.104(c)(2), of which, for the Examiner's convenience, the pertinent portion is reproduced below.

37 CFR 1.104 Nature of examination.

(c) *Rejection of claims.*

(2) In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

The Examiner is further reminded of the requirements of MPEP § 706:

706 Rejection of Claims [R-2]

... The goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity. ...

Applicants further note that MPEP § 706.02(j) states (in pertinent part which is equally relevant to novelty rejections):

... It is important for an examiner to properly communicate the basis for a rejection so that the issues can be identified early and the applicant can be given fair opportunity to reply. ...

The cited reference is 130 pages long and clearly qualifies as a 'complex' reference. Because the office action fails to clearly articulate the bases of the rejection, does not clearly explain the pertinence of the cited portions, and does not properly

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communicate the bases for the rejection, applicants have been deprived of a fair opportunity to completely reply.

Second, as pointed out in detail below, many of the citations have no clear bearing on the claim language. In order to advance the prosecution and create a clear record for possible appeal, it is imperative for the Examiner to clearly articulate which portion of the reference the Examiner is relying on for each and every claim recitation together with the Examiner's analysis of how the cited portion reads on the claim. To be clear, applicants do not have any difficulty understanding the reference. Rather, applicants cannot understand the rejection or how the Examiner is applying the reference against the claims. Clarification is required.

For each of the foregoing reasons, the present office action is defective and applicants have been deprived of a fair opportunity to reply. Accordingly, if any rejection of any claim is maintained or if any new ground of rejection of any claim is applied, applicants respectfully request a new non-final office action.

In any event the rejection is not understood and appears to be erroneous. The office action cites paragraph 204 for reading on several claim recitations. For the Examiner's convenience, paragraph 204 is reproduced below:

> [0204] The INIC is configured so that the host should never need to directly read the ISR from the INIC. To support this, it is important for the host/INIC to arrange a buffer area in host memory into which the ISR is dumped. The address and size of that area ca be passed to the INIC via a command on the XMT interface. That command will also specify the setting for the IMR. Until the INIC receives this command, it will not DMA the ISR to host memory, and no events will cause an interrupt. The host could if necessary, read the ISR directly from the INIC in this case.

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Claim 1 recites, among other things, implementing N NICs, a first one of the N NICs being dedicated to receiving an incoming data stream. The foregoing paragraph 204 describes only a single INIC, not N NICs. Nothing in paragraph 204 describes that the INIC is dedicated to receiving an incoming data stream. In any event, it is not apparent what portion of paragraph the Examiner considers to purportedly describe that the INIC is dedicated to receiving an incoming data stream. Clarification or withdrawal of the rejection is required.

Claim 1 further recites binding an interrupt from the first one of the N NICs to a first one of the N processors. Nothing in paragraph 204 describes that the INIC is bound to a first one of N processors. In any event, it is not apparent what portion of paragraph 204 the Examiner considers to purportedly describe that the INIC is bound to a first one of N processors. Clarification or withdrawal of the rejection is required.

Claim 1 further recites binding an interrupt for an nth NIC to an nth processor, wherein $0 < n <= N$. Nothing in paragraph 204 reads on this claim recitation. In any event, it is not apparent what portion of paragraph 204 the Examiner considers to purportedly describe binding an interrupt for an nth NIC to an nth processor, wherein $0 < n <= N$. Clarification or withdrawal of the rejection is required.

Claim 1 further recites binding a deferred procedure call (DPC) for the nth NIC to the nth processor. The office action relies on paragraph 0068 for purportedly reading on this claim recitation. For the Examiner's convenience, paragraph 0068 is reproduced below:

[0068] FIG. 11 shows a TCP/IP implementation of command driver software for Microsoft.RTM. protocol messages. A conventional host protocol stack 350 includes MAC layer 353, IP

layer 355 and TCP layer 358. A command driver 360 works in
concert with the host stack 350 to process network messages. The
command driver 360 includes a MAC layer 363, an IP layer 366
and an Alacritech TCP (ATCP) layer 373. The conventional stack
350 and command driver 360 share a network driver interface
specification (NDIS) layer 375, which interacts with the INIC
miniport driver 306. The INIC miniport driver 306 sorts receive
indications for processing by either the conventional host stack 350
or the ATCP driver 360. A TDI filter driver and upper layer
interface 380 similarly determines whether messages sent from a
TDI user 382 to the network are diverted to the command driver
and perhaps to the fast-path of the INIC, or processed by the host
stack.

As is readily apparent from the foregoing, the cited paragraph makes no mention
whatsoever of any DPC or binding a deferred procedure call (DPC) for the nth NIC to the
nth processor. In any event, it is not apparent which portion of paragraph 0068 the
Examiner considers to purportedly read on this claim recitation. Clarification or
withdrawal of the rejection is required.

The office fails to establish that the reference identically describes many of the
claims recitations of claim 1. Accordingly, claim 1 and its dependent claims 2-4 are
patentable over Boucher. The dependent claims are separately patentable for at least the
following reasons.

Claim 2 recites tightly coupling M client connections to the nth processor via the
nth NIC, wherein M is a positive integer. The office action relies on paragraph 0465 for

purportedly reading on this claim recitation. This is clearly erroneous. For the

Examiner's convenience, paragraph 0465 is reproduced below:

> [0465] For example, there are no "hooks" into the Microsoft
> TCP/IP driver which would allow for routing of IP packets
> between our driver (handling our INICs) and the Microsoft driver
> (handling other NICs).

From the foregoing it is readily apparent that paragraph 0465 provides no

teaching that has any relevance to the claims. The reliance on paragraph 0465 appears to

be an editorial error on the Examiner's part. However, in the absence of any further

analysis or reasoning provided by the Examiner, it is impossible for applicants to

understand the rejection. In any event, the rejection must be withdrawn.

Because the cited paragraph 0465 fails to teach or suggest the recited tightly

coupling M client connections to the nth processor via the nth NIC, wherein M is a

positive integer, claim 2 is patentable over Boucher.

Claims 3 and 4 each recite features relating to binding P server threads to specific

ones of the second through Nth processors, wherein P is a positive integer. The office

action relies on paragraph 0422 for purportedly reading on this claim recitation. For the

Examiner's convenience, paragraph 0422 is reproduced below:

> [0422] The DDK specifies that when a protocol driver chooses to
> keep a packet, it should return a value of 1 (or more) to NDIS in its
> ProtocolReceivePacket routine. The packet is then later returned to
> NDIS via the call to NdisReturnPackets. This can only happen

after the ProtocolReceivePacket has returned control to NDIS. This requires that the call to NdisReturnPackets must occur in a different execution context. We can accomplish this by scheduling a DPC, scheduling a system thread, or scheduling a kernel thread of our own. For brevity in this section, we will assume it is a done through a DPC. In any case, we will require a queue of pending receive buffers on which to place and fetch receive packets.

Again, it is impossible for applicants to understand the Examiner's position because the cited paragraph 0422 simply does not describe binding P server threads to specific ones of the second through Nth processors, wherein P is a positive integer. In any event, it is not apparent which portion of paragraph 0422 the Examiner considers to purportedly describe binding P server threads to specific ones of the second through Nth processors, wherein P is a positive integer. Clarification or withdrawal of the rejection is required.

Because the cited paragraph 0422 fails to teach or suggest binding P server threads to specific ones of the second through Nth processors, wherein P is a positive integer, claims 3 and 4 are respectively patentable over Boucher.

With respect to claim 9, the office action cites paragraph 408-465. Applicants note that such bulk citation to numerous columns of text in the reference is improper and does not clearly set forth the basis for the rejection or the Examiner's position. Presuming that the Examiner is relying on paragraph 0465 for the recited tightly coupling M client connections to the nth processor via the nth NIC, wherein M is a positive integer and wherein $0 < n <= N$ (e.g. as in connection with claim 2 above), the rejection fails.

Claims 10, 13, 23-26, and 31-34 include similar recitations as discussed above in connection with claims 1-4, and are accordingly patentable for the same reasons discussed above.

With respect to claim 15, the rejection is clearly erroneous and appears to be an editorial error. The office action fails to address any of the recitations of claim 15.

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In view of the foregoing, favorable reconsideration is respectfully requested. Early notification of the same is earnestly solicited. If there are any questions regarding the present application, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

Respectfully submitted,

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